



Raymore Community-Wide Trails Plan

ADDRESSING ACTIVE TRANSPORTATION NEEDS

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Introduction

Figure 1. Lucy Webb On-street Signed Bike Route



Figure 2. Shared Use Path



The City of Raymore has developed over 20 miles of trails that provide bicycle and pedestrian connections between homes, schools, churches, commercial areas and parks. The existing system consists of trails within parks, trails along greenways and stream corridors and trails along the existing roadways. In addition to these trail types, there are also on-street bicycle facilities such as the signed bike route on Lucy Webb Road.

As a part of the Community-Wide Trails Plan (CWTP) update, the City wanted to evaluate the existing trails master plan and focus on five key areas.

1. Evaluation of the existing trails system.
2. Development of a new trail concept for Memorial Park.
3. Reaffirmation of existing and proposed connectivity within the community.
4. Identification of connections to neighboring communities.
5. Identification of a connection to the Rock Island Trail State Park in Pleasant Hill.

The existing trail and greenway system was adopted as a part of the Growth Management Plan. It proposed several additional miles of trail in the future growth area of the City. The majority of the proposed corridors followed low areas along creeks or streams, proposed utility corridors and new roadways.

The Growth Management Plan vision statement of ***“Raymore Together...a community of active people, quality places and economic opportunity”*** is a great statement to guide the CWTP. The Plan also outlined a number of goals which directly relate to community trails and active transportation systems:

Economic Opportunity Goal #1 –

Retain existing businesses and encourage expansion of existing business.

Quality Neighborhoods - Goal #5 –

Continue development of neighborhood parks.

Figure 3. Existing trail and on-street facilities within the City of Raymore

Raymore Existing Facilities

Legend

- Existing Shared Use Path
- Existing Sidewalk
- Existing On-Street Facilities
- City Limits





Figure 4. Pedestrian Crosswalk with Refuge Island



Figure 5. Sidewalk Connection



Figure 6. On-street “Sharrows” Facility



Community Connectivity Goal#2

Provide connections to existing transportation systems in the Kansas City metropolitan area.

Community Connectivity Goal #3

Continue expansion of the City trail and sidewalk network.

Community Connectivity Goal #4

Assist in creating social connectivity of residents.

In addition to the Growth Management Plan, the Transportation Plan includes a section on trail types which defines specific facilities that could be used in the City. It also defined general categories of bicycle user types: Type A — more advanced or experienced cyclists, Type B — basic or less confident adult cyclists that may also use the bike

for transportation and Type C — children that may be riding on their own or with parents. The suggested facility types include 10’ wide bike paths and 5’ wide bicycle lanes as recommended by the regional MetroGreen Plan.

The City’s previous planning through the Growth Management Plan and the Transportation Plan set the stage and illustrate the community’s commitment to connectivity. The CWTP update provides the “how and where” for future expansion of the system.

Existing Sidewalk Connections

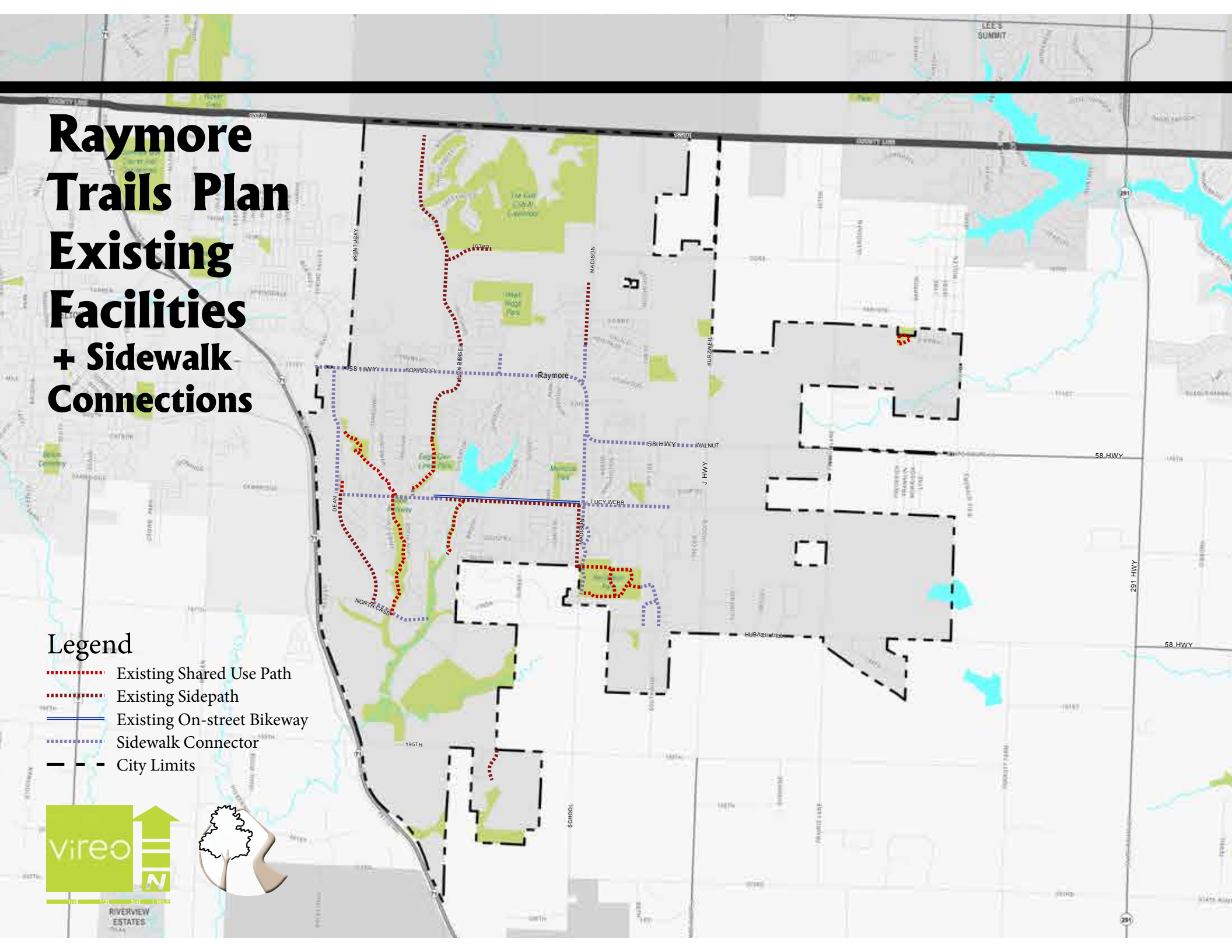
This map (Figure 7) represents the existing trails network of shared use paths, sidepaths, on-street bikeway and sidewalk connectors. These trails are currently developed and represent approximately 20 miles within the City. Examples of these different existing trails are shown below.

Figure 7. Sidewalk connections between existing trails in Raymore

Raymore Trails Plan Existing Facilities + Sidewalk Connections

Legend

- Existing Shared Use Path
- Existing Sidewalk
- Existing On-street Bikeway
- Sidewalk Connector
- City Limits





System Evaluation

Figure 8. Side Path



Figure 9. Bicycle Lane



Community Destinations

As a part of the trails plan update, community destination points were identified and compared to existing and future trail connections (Figure 10). Community destinations include:






- dining places
- church facilities
- grocery stores
- parks
- banks
- convenience stores
- schools
- health facilities
- government offices
- post office
- library
- senior housing

The existing system provides for good connectivity to the existing community destinations. As the community expands, the future system should continue to create trail and active transportation connections to destination points.

Figure 10. Map of destinations within Raymore and the connections between them.

Raymore Trails Plan Destinations

Legend

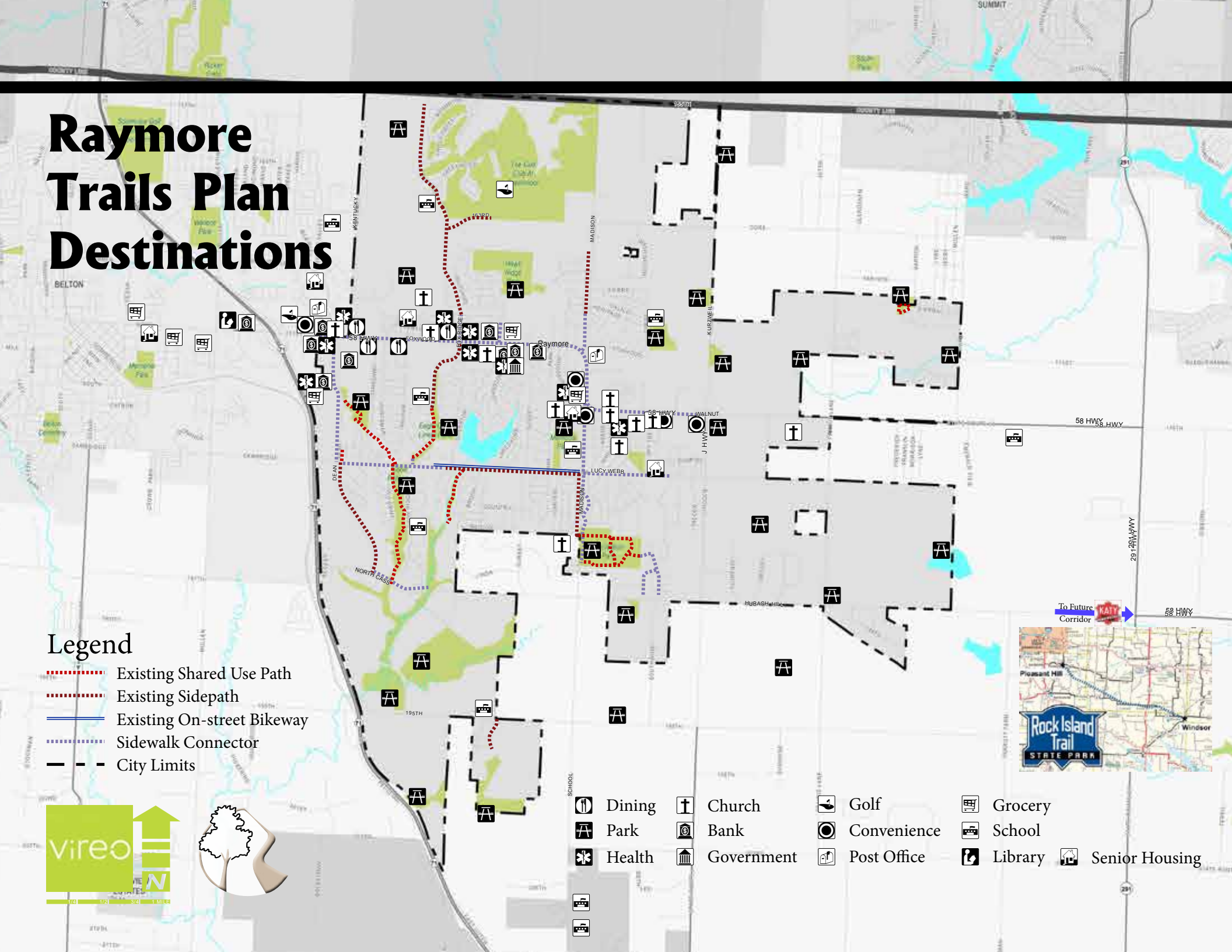
-  Existing Shared Use Path
-  Existing Sidepath
-  Existing On-street Bikeway
-  Sidewalk Connector
-  City Limits



- | | | | |
|---|--|--|---|
|  Dining |  Church |  Golf |  Grocery |
|  Park |  Bank |  Convenience |  School |
|  Health |  Government |  Post Office |  Library |
| | |  Senior Housing | |



To Future Corridor  KATY  58 HWY





Evaluation of the existing system

The CWTP update included an evaluation of the existing system (Figure 4) which was done in July of 2014. A number of different conditions were observed and discussed with city staff on August 26, 2014. The existing system was found to be in good condition and many problem areas had recently been fixed by the City. As the system expands, there are a few things to consider while planning for a high quality trail system and active transportation network. These are provided as recommendations and are as follows:

- Provide good connectivity within the system by ending trail segments at a street, sidewalk or other logical end point. Include the necessary curb cuts and ADA detectable warning strips, if warranted.
- Require private developers to construct sections of trail within the city that meet city engineering standards.
- Continue to place trail identification and wayfinding signs at the logical points along the trail system, such as the beginning





point, street crossings and end points to sections of trail.

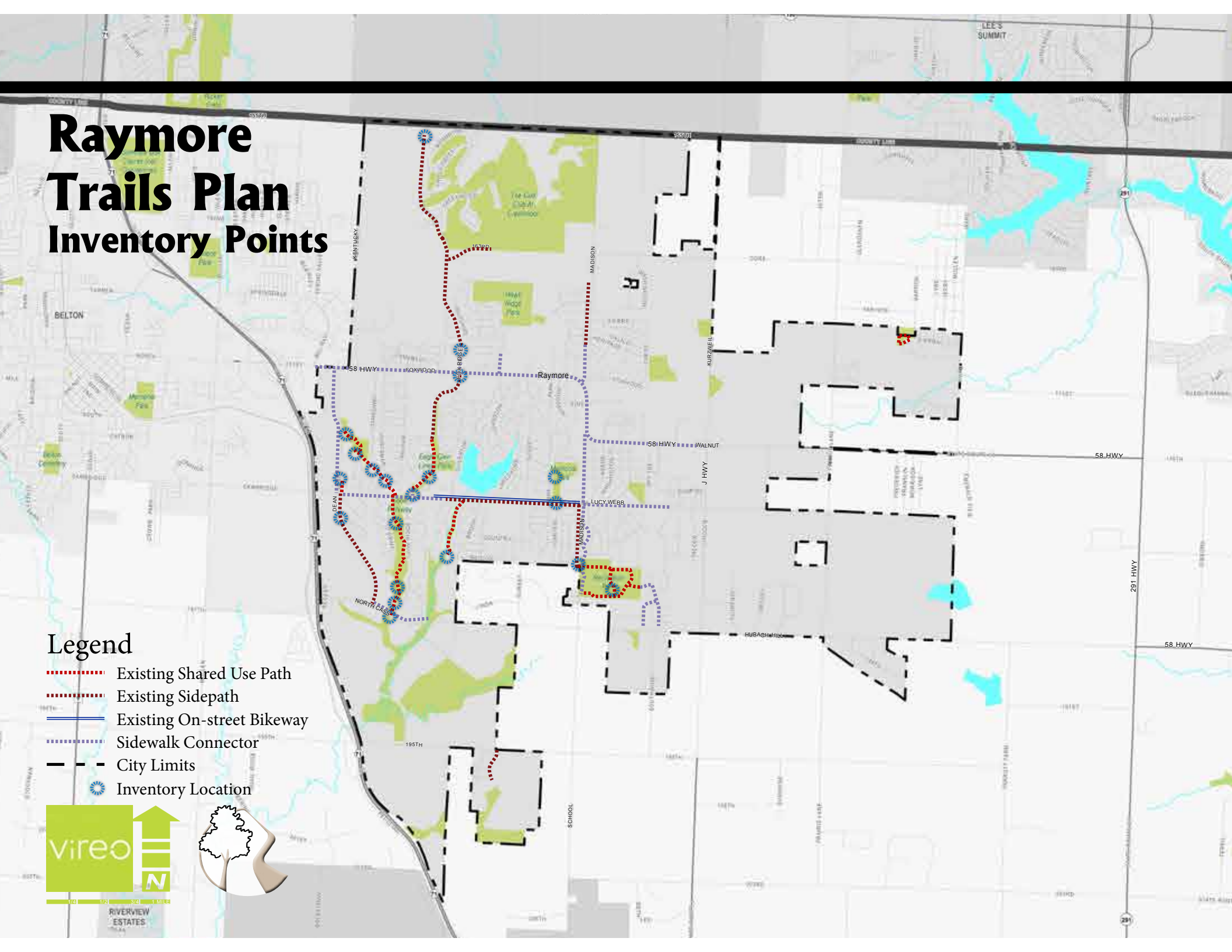
- Avoid conflicts with sign posts, inlet boxes and mailboxes when trails run along roadways.
- Continue to use the city's current engineering standard trail section in trail renovation projects and new construction.
- Continue to manage stream buffer areas with tall grasses and woody vegetation to support erosion control.
- Continue to inspect the trail system for erosion problems around bridge abutments and low water crossings.
- When constructing concrete trails, saw cut joints to provide a smoother surface for cyclists and strollers.

Figure 11. Dashed circles indicate locations of inventory items discussed in the following pages.

Raymore Trails Plan Inventory Points

Legend

-  Existing Shared Use Path
-  Existing Sidepath
-  Existing On-street Bikeway
-  Sidewalk Connector
-  City Limits
-  Inventory Location





- Consider on street bike facilities when constructing new roadways. A list of different facility types can be found in the Mid-America Regional Council Regional Bikeways Plan.
- Consider realigning and widening the trails within Memorial Park to achieve better connectivity to the neighborhood, the school and recreation amenities within the park. As a part of the realignment plans, consider eliminating the three narrow bridge crossings of the drainage swale with two wider, pre-engineered structures.

The following pages illustrate the findings of the field inventory.

North Foxridge Trail along Foxridge Drive



Trail dead-ends abruptly. Recommendations:

- Advanced warning signage and curb cut at street edge, or
- Complete the trail up to 155th with curb cut.



Example of a private developer constructed/maintained trail. Trail is very attractive and looks smooth, however the constructed cross-section results in a bumpy, jarring ride.

North Foxridge Trail along Foxridge Drive



Existing trail identification signage is well thought-out and helpful to the user.

System-wide: good placement at beginning/end of trails.

Recommendation: Place sign between curb and trail to improve wayfinding from the south. (City staff checked on the location of utilities in this area and believes the sign can be placed as recommended.)



North Foxridge Trail along Foxridge Drive

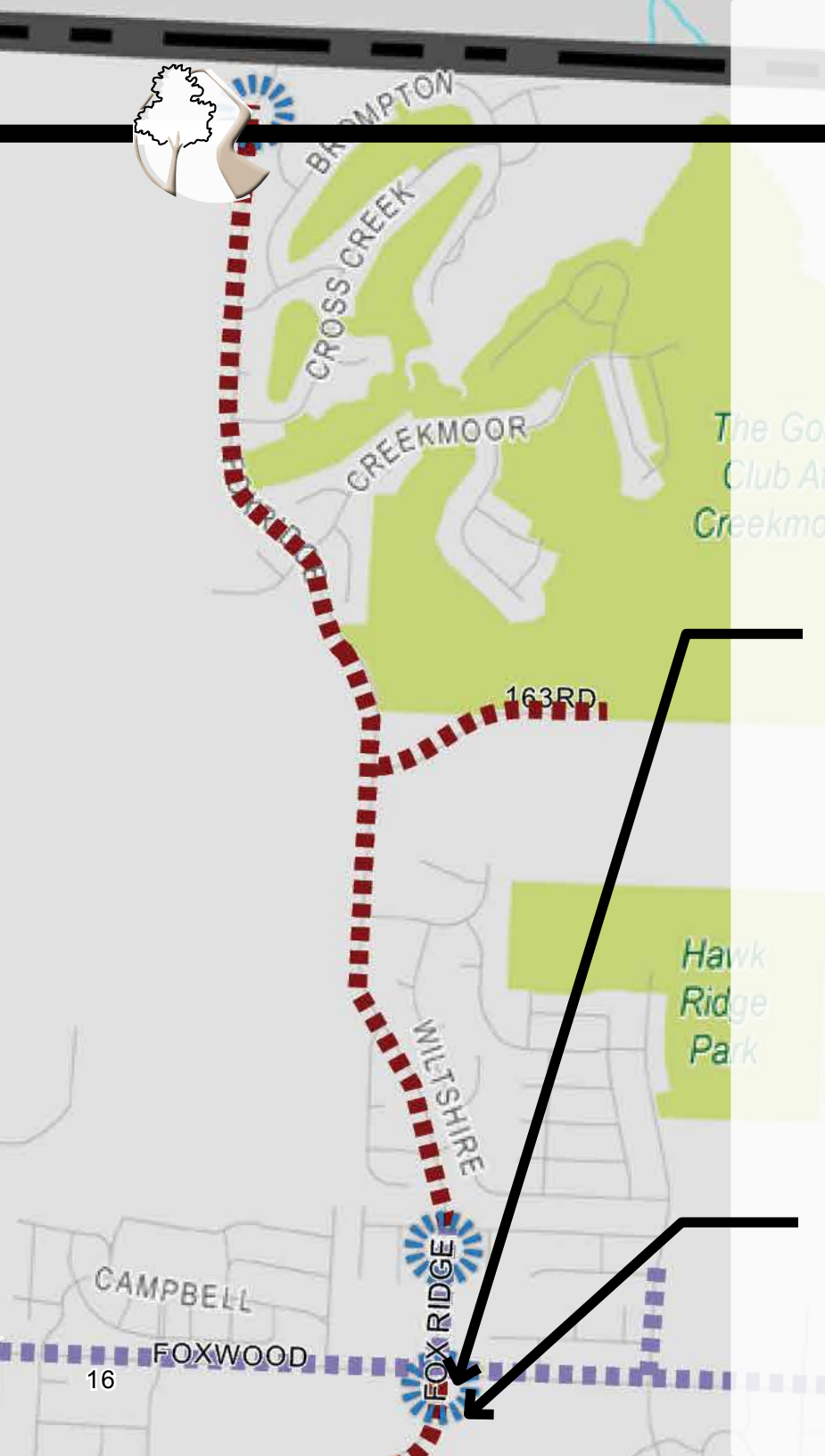


Granada Drive intersection — unclear where to go to get to the trail.
Recommendation: wayfinding signage.



Wide sidewalk with a number of obstacles: sign posts, truck bumper, pavement cut-outs, inlet covers and mailboxes. Recommendation: Add curb stop for parking space, fill in missing concrete areas, consider moving mailboxes and sign posts where possible.

South Foxridge Trail along Foxridge Drive

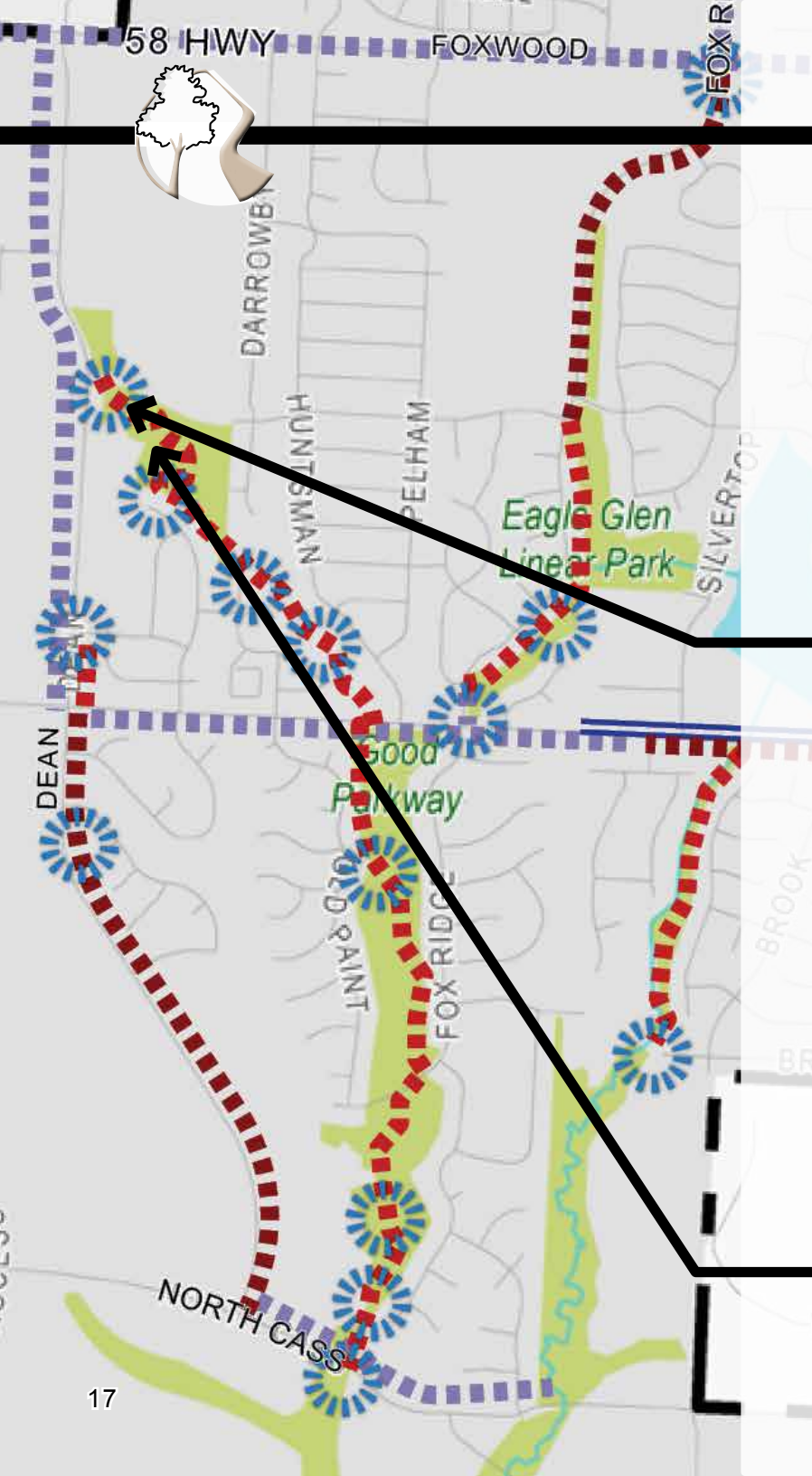


Well-appointed crosswalks characterize the City.



Foxridge Trail south of 58 Hwy under re-construction using new City standard.

LeMor Trail near Dean Avenue



Trail is missing identification/wayfinding signage at north end. Systemwide: many signs are damaged or missing. Parks Dept. is already in the process of replacing them.



Nice bench and trash receptacle standard is implemented here and on Good Parkway. Recommendation: expand the provision of benches and receptacles to 1/2 mile intervals on all trails.

LeMor Trail near Dean Avenue

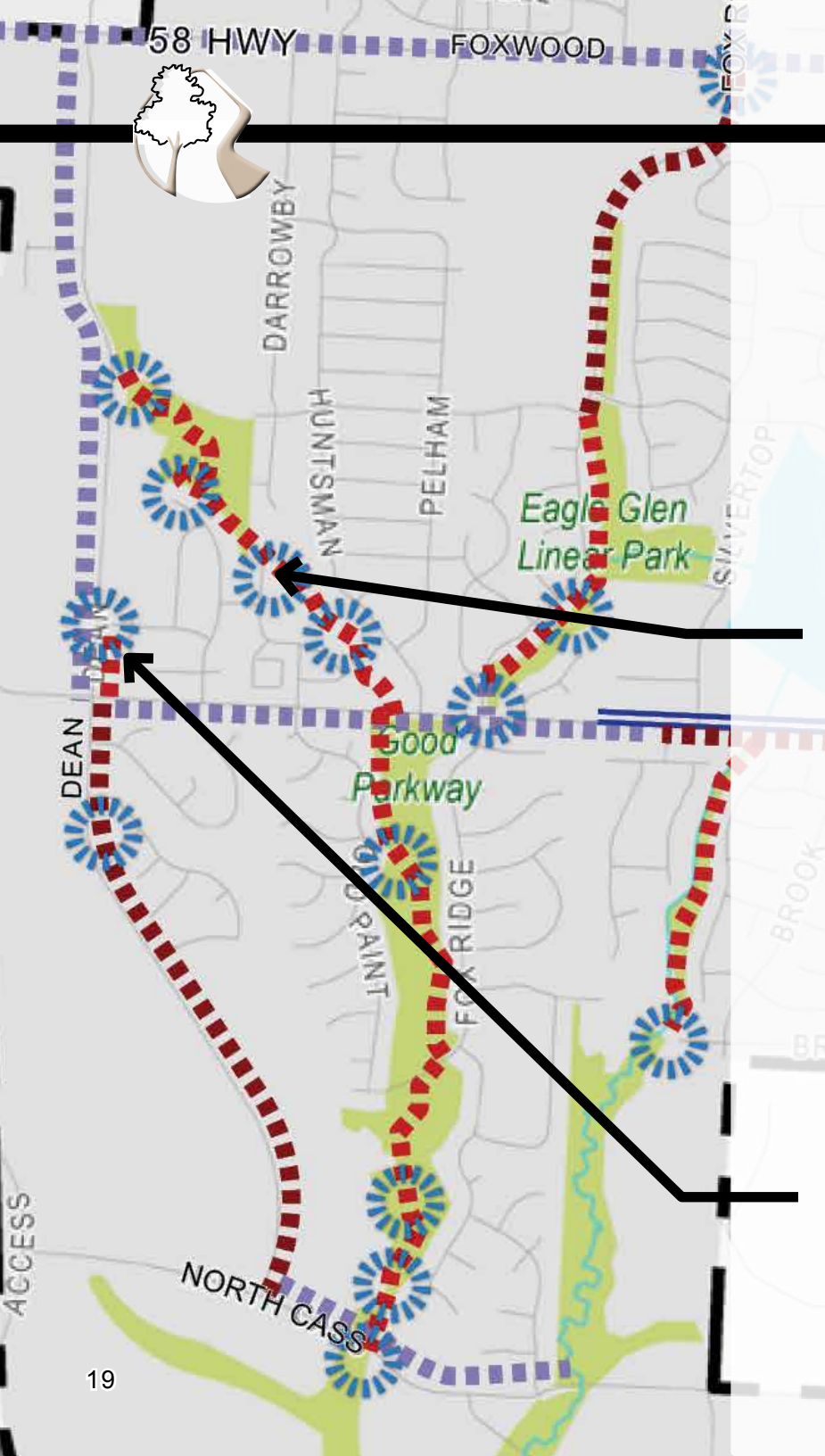


Switchback warning is small sign attached to pavement. Recommend: larger, upright warning signage.



Potential subsidence of subgrade where trail is cracked and sinking slightly. Parks has already identified this for repair.

LeMor Trail / Dean Avenue Trail



Identification/wayfinding signage missing at Kreisel Dr.



Trail currently ends at Shagbark without wayfinding direction. Hunt Midwest will be continuing trail to the north in the next year. Recommendation: provide temporary wayfinding to direct users to sidewalk on west side of Dean Ave.

58 HWY

FOXWOOD

Dean Avenue Trail



Eagle Glen Linear Park

Good Parkway



Dean Avenue Trail asphalt segments need(ed) reconstruction with Raymore's revised trail cross section. City staff now has this completed.

LeMor Trail / Good Parkway Trail

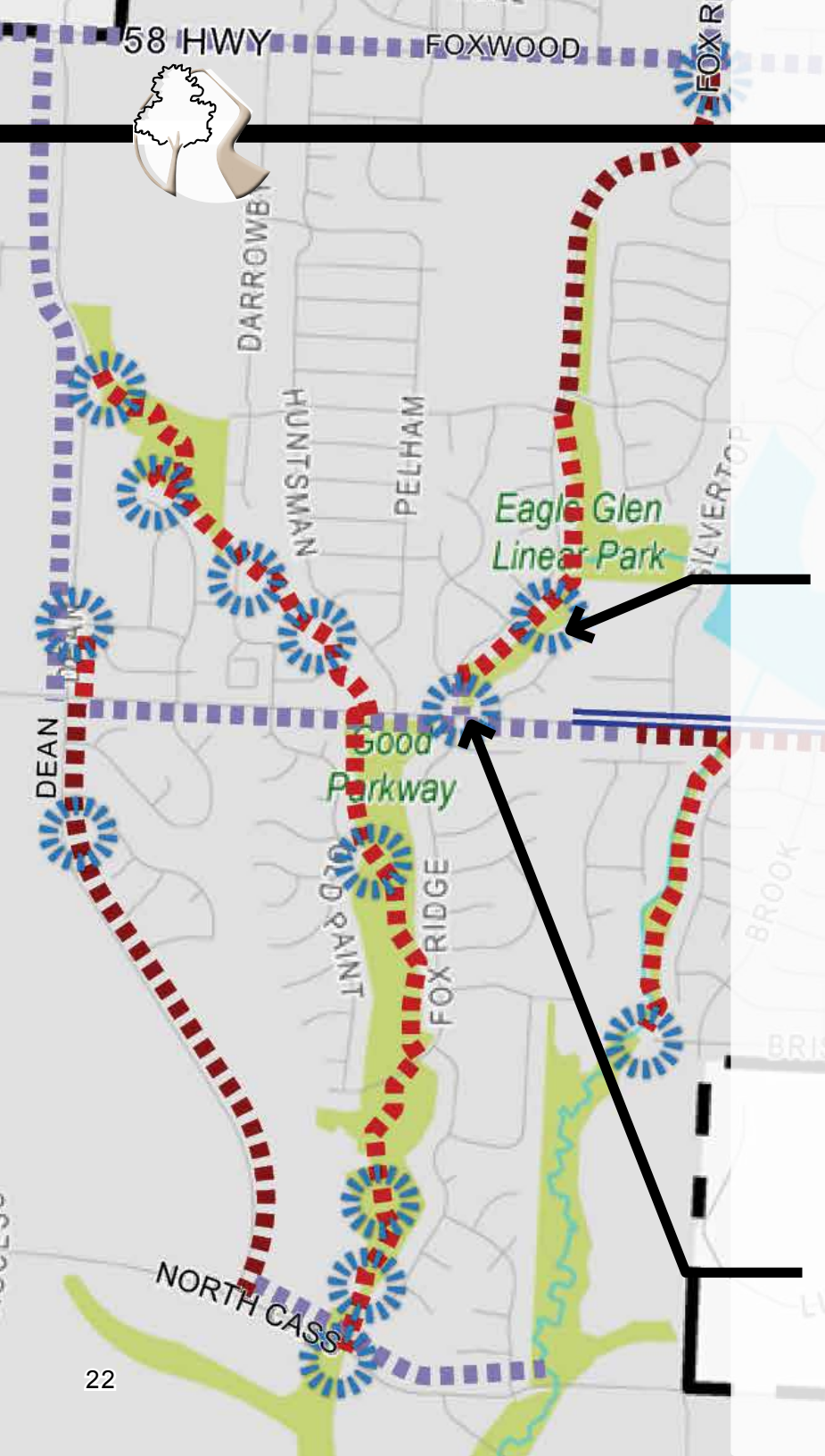


A crack in the walk at bridge abutment. Already identified by Parks Dept. as a winter project. No guard railing present at bridge ends. Recommendation: 45° winged rails for all bridges.



Good Parkway's asphalt is lifting over roots, cracking at culverts and sinking to make this elevation mismatch at a bridge abutment. Elevation adjustment already on Parks' winter project list. Recommendation: Replace Good Parkway asphalt trail segments with new cross-section standard.

Eagle Glen Trail

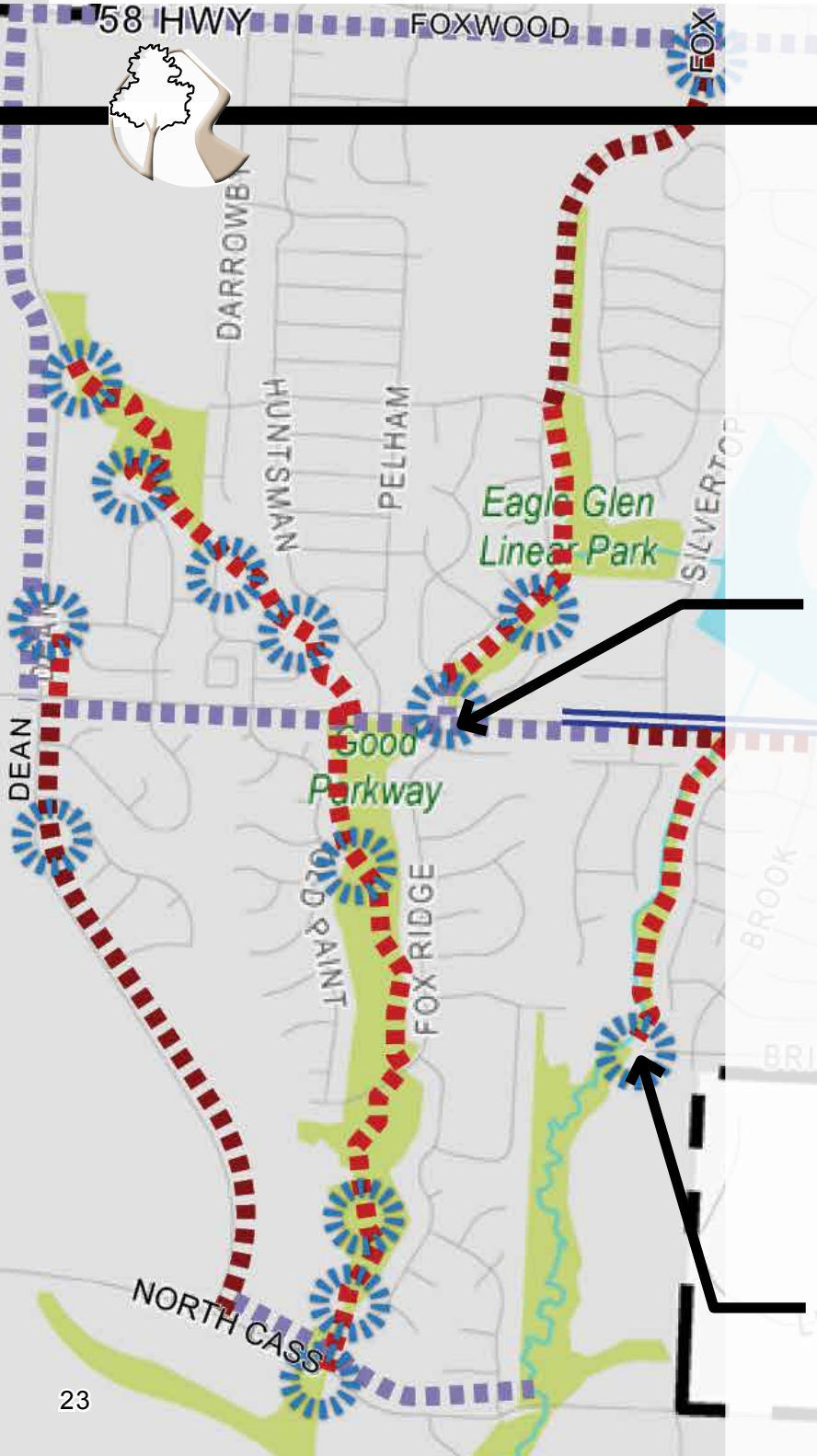


Eagle Glen asphalt is dipping and cracking. Grass grows in many of the cracks, further compromising the pavement. Contract was awarded on August 25, 2014 for replacement.



Trail terminates at Fox Ridge without access ramp or warning strip. Contract was awarded on August 25, 2014 for replacement. Recommendation: include wayfinding here.

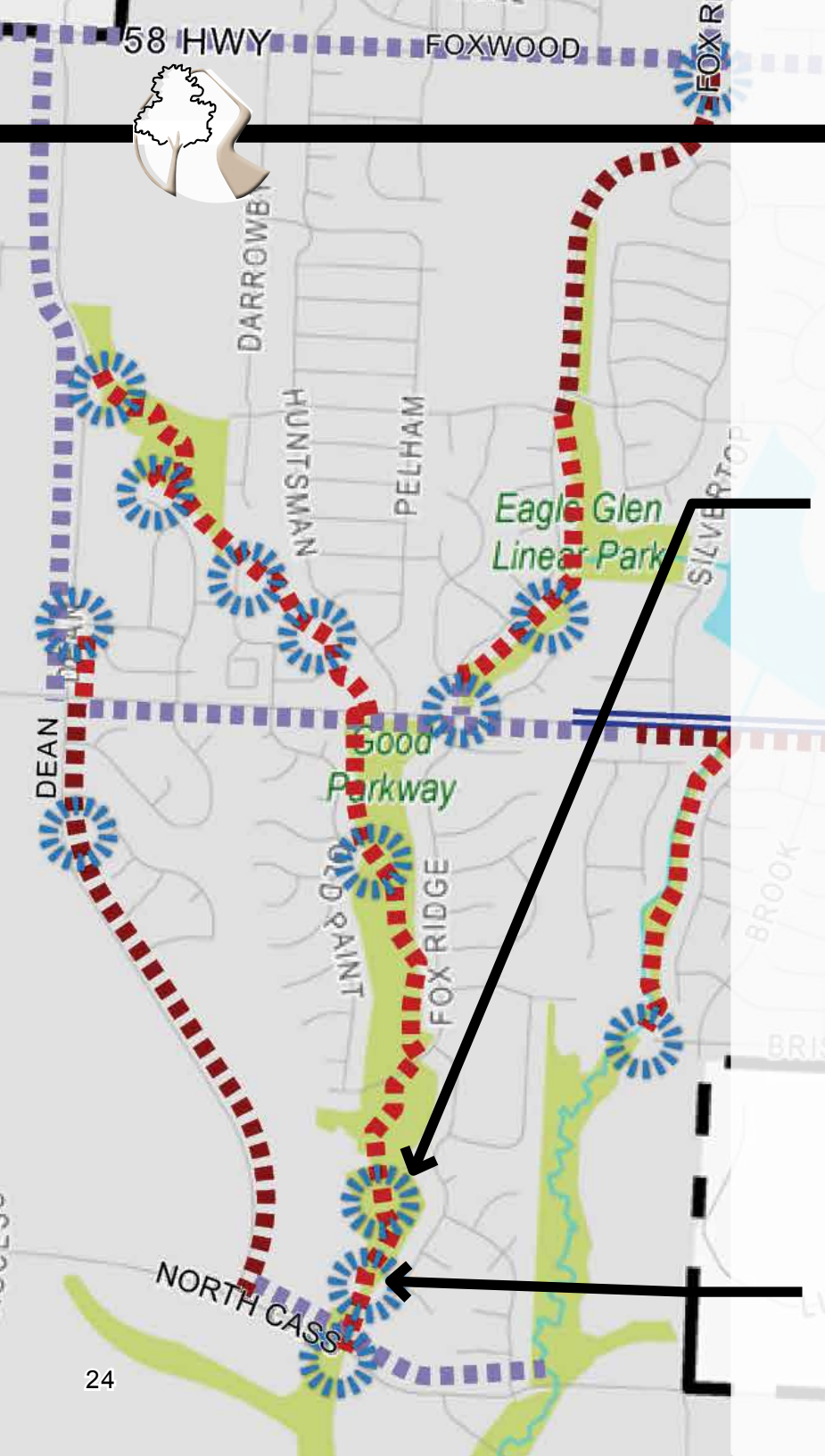
Eagle Glen to Lucy Webb Trail / Brookside Trail



Wayfinding at this intersection would help users know where to go next. Recommendation: provide signage to illustrate trail users should cross the street to connect with the Lucy Webb Trail.



Brookside Trail ends at Bristol Drive, and has no connection to the walks in the neighborhood. Recommendation: provide temporary connection until Brookside extends south.



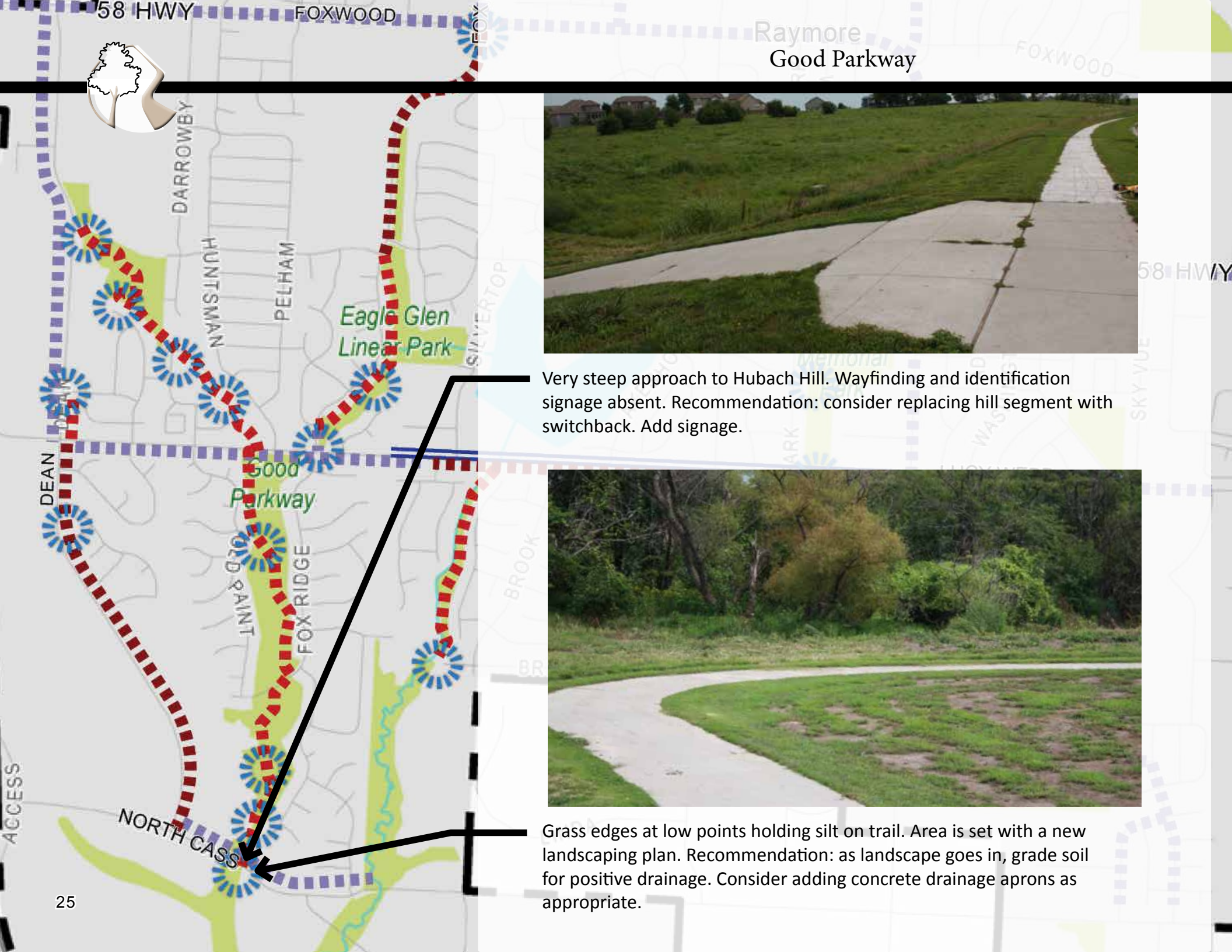
Good Parkway



Incised top of bank is cutting toward trail and being mowed to the edge once or twice a year. Distance 8' or less currently. Recommendation: eliminate mowing and allow woody vegetation to grow and stabilize slope. Monitor for additional stabilizing measures as needed.



Erosion undercutting low-water crossing. Silt covers trail and LWC warning signage on pavement. Recommendation: repair and armor eroded areas. Supply upright signage. Increase frequency of trail sweeping.



Raymore
Good Parkway

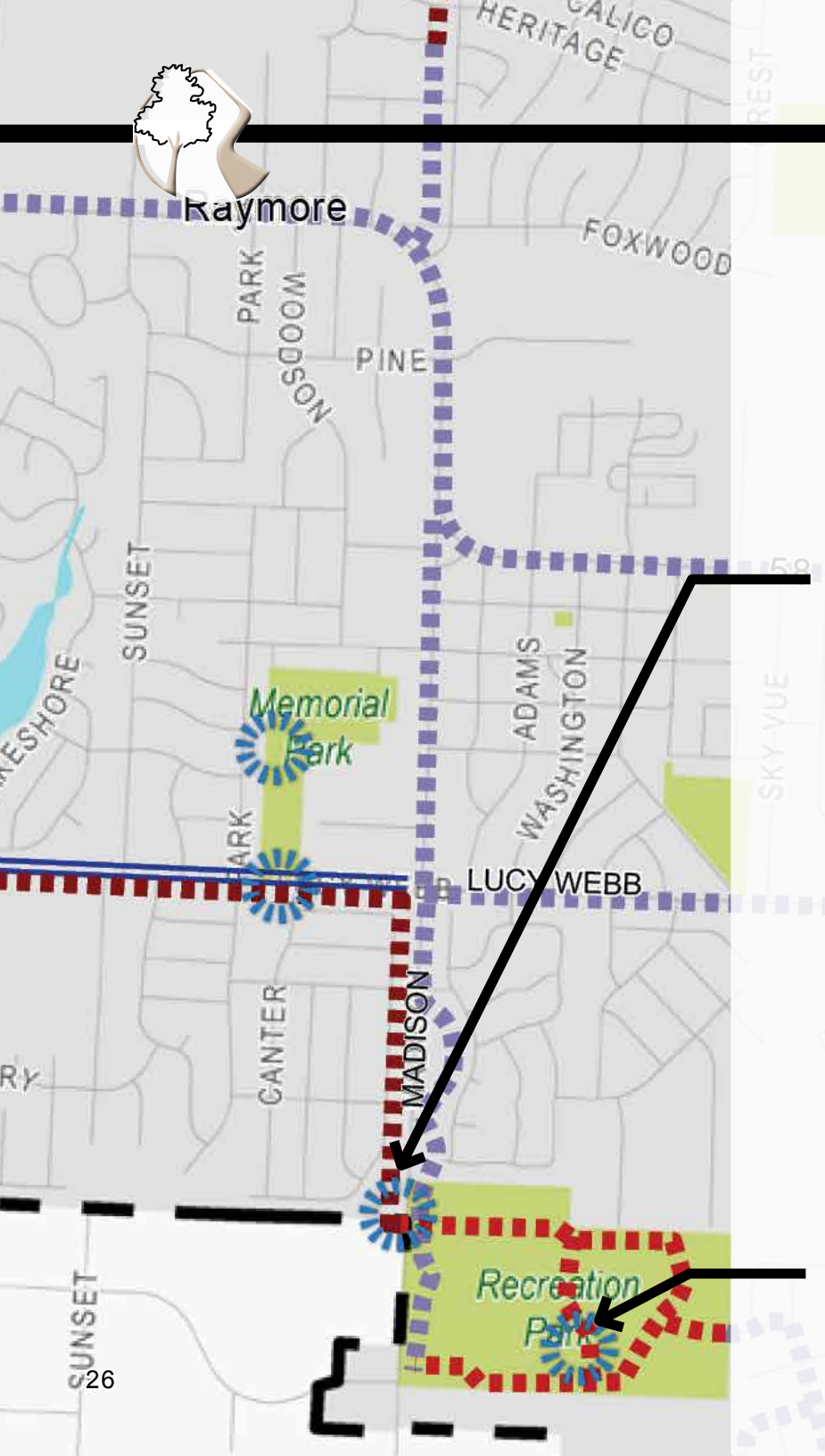


Very steep approach to Hubach Hill. Wayfinding and identification signage absent. Recommendation: consider replacing hill segment with switchback. Add signage.



Grass edges at low points holding silt on trail. Area is set with a new landscaping plan. Recommendation: as landscape goes in, grade soil for positive drainage. Consider adding concrete drainage aprons as appropriate.

South Madison Trail / Recreation Park Trail

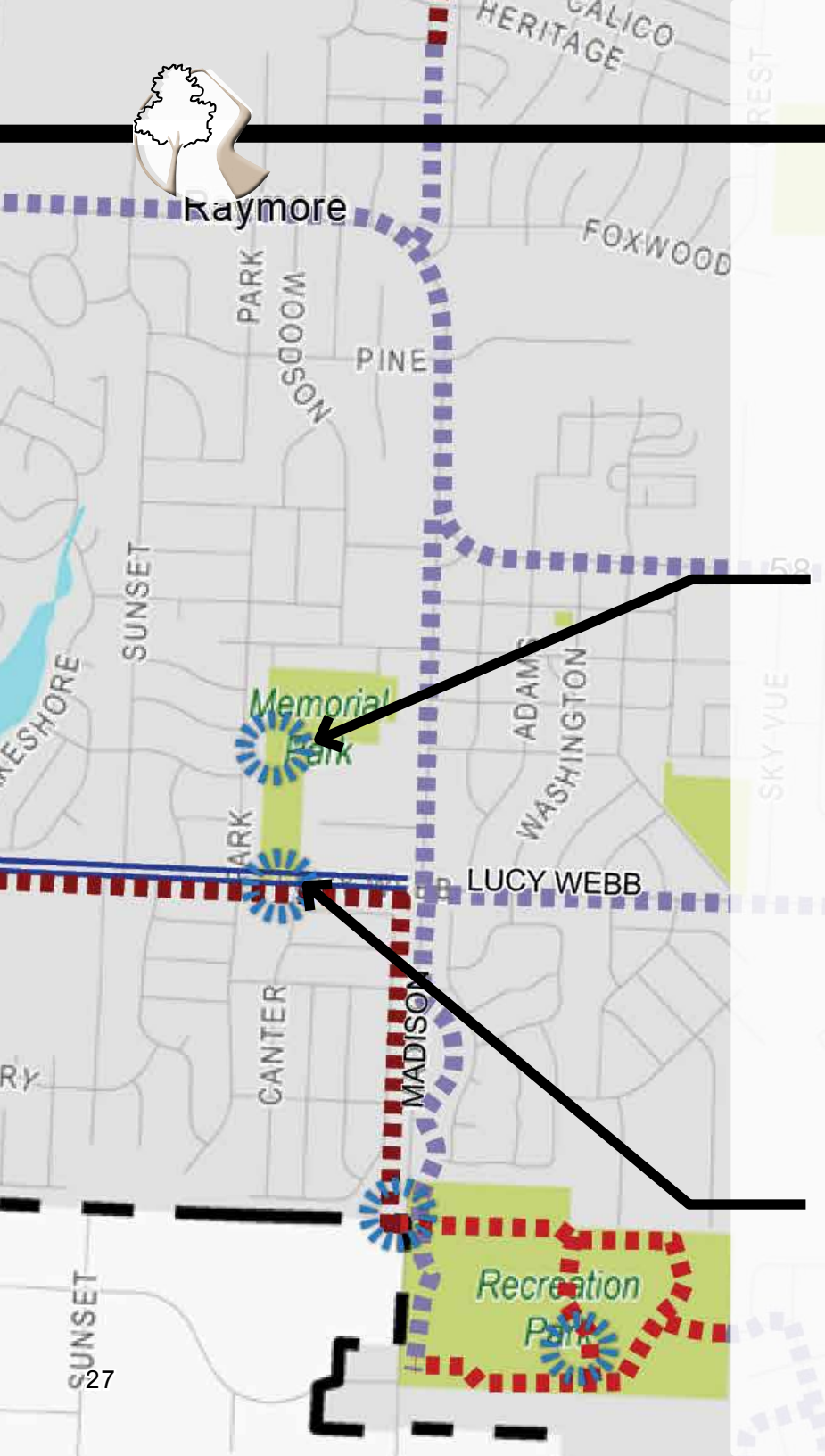


Utilities obstruct the trail along South Madison. Recommendation: relocate utilities and correct trail alignment. Add guardrail to top of segmental wall.



Stormwater from parking is overpowering drainage design. Maintenance has this location on their list to be addressed.

Memorial Park Trails



Many trails with none near school or ballfields. Narrow wood bridges with step at ends. Layout is fun, but not supporting all uses, and key connections are missing. Recommendation: start fresh with a connecting loop that serves all park and school uses.



Individuals opt to cross into the park at the street intersection and neglect the trail alignment. Lucy Webb ped crossing a recent, significant investment. Recommendation: serve park users with a logical loop. Adding a second connection across Lucy Webb is not necessary at this time.



The Proposed Plan

Regional Bikeways

As a part of the new CWTP the Mid America Regional Council's updated Regional Bikeways Plan was added (Figure 12) to show the overall regional connections to surrounding communities. These include bike corridors along the following:

North Cass Parkway to Hubach Hill Road,

South School Road

Prairie Lane north to Lee's Summit

Dean Avenue

Outer Road to Belton (Mullen Road)

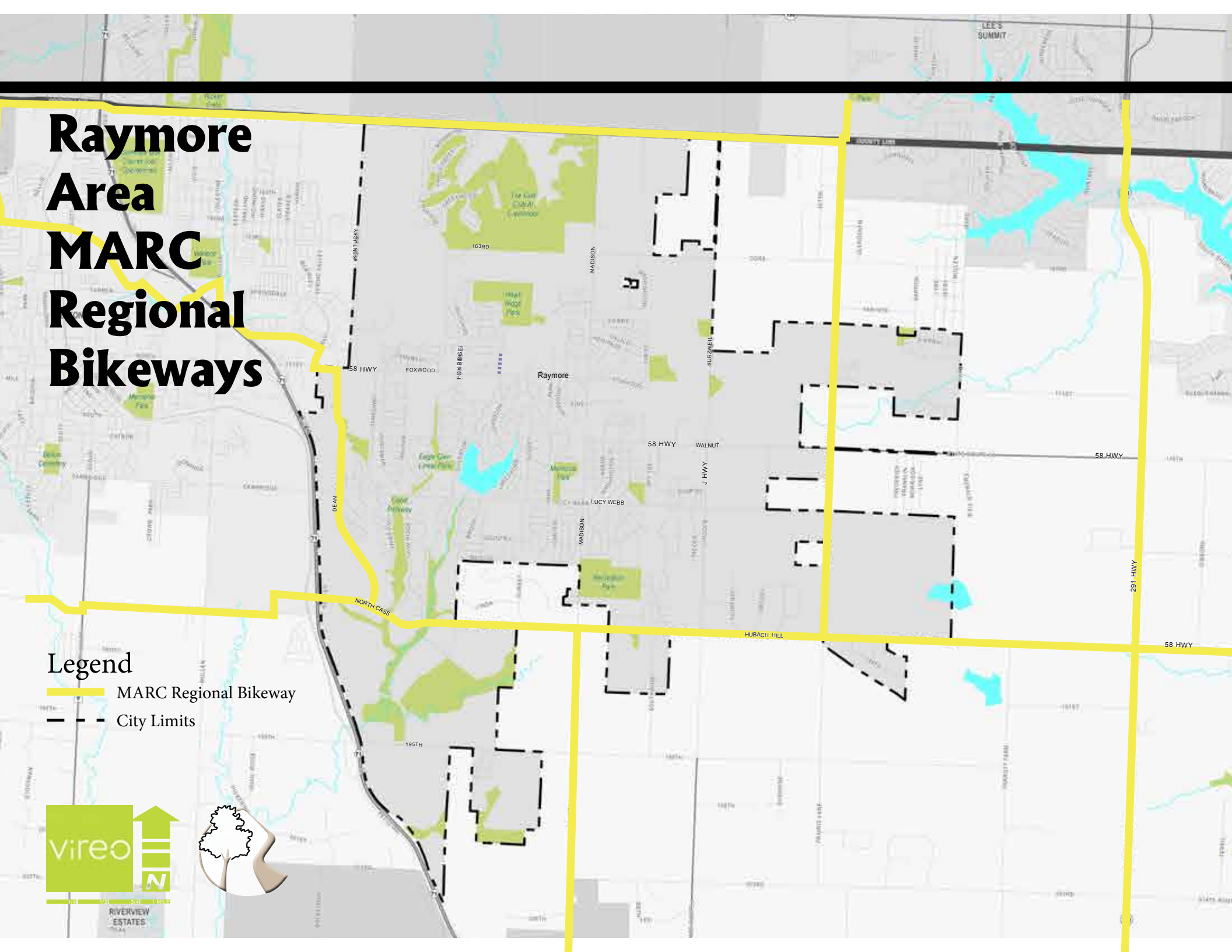
East 155th Street

*Figure 12. MARC Regional Bikeways
(Proposed at the date of this Plan)*

Raymore Area MARC Regional Bikeways

Legend

-  MARC Regional Bikeway
-  City Limits





Planned On-Street Facilities

In addition to the MARC Regional Bikeways, and as the City grows, consider on-street facilities (Figure 13) in Raymore on the following streets:

- Madison Street from School Road to East 155th Street
- Lucy Webb Road from Dean Avenue to Prairie Lane
- 163rd Street\Gore Road from Prairie Lane to Kentucky Road
- 195th Street from 71 Highway to School Road

Figure 13. Existing and planned on-street facilities

Raymore Trails Plan Existing and Planned On-Street Facilities

Legend

- Existing On-street Bikeway
- Planned On-street Bikeway
- MARC Regional Bikeway
- City Limits





Existing and previously planned facilities

The existing system of trails includes shared use paths, sidepaths, sidewalk connectors and an on-street bikeway (Figure 14). The proposed system includes shared use paths and the designated greenways corridors as part of the Growth Management Plan. The majority of the proposed corridors follow low areas along creeks or streams, or along proposed utility and roadway corridors.

Figure 14. Raymore's current Trail Master Plan with existing facilities shown.

Raymore Trails Plan Existing Facilities + Previously Planned

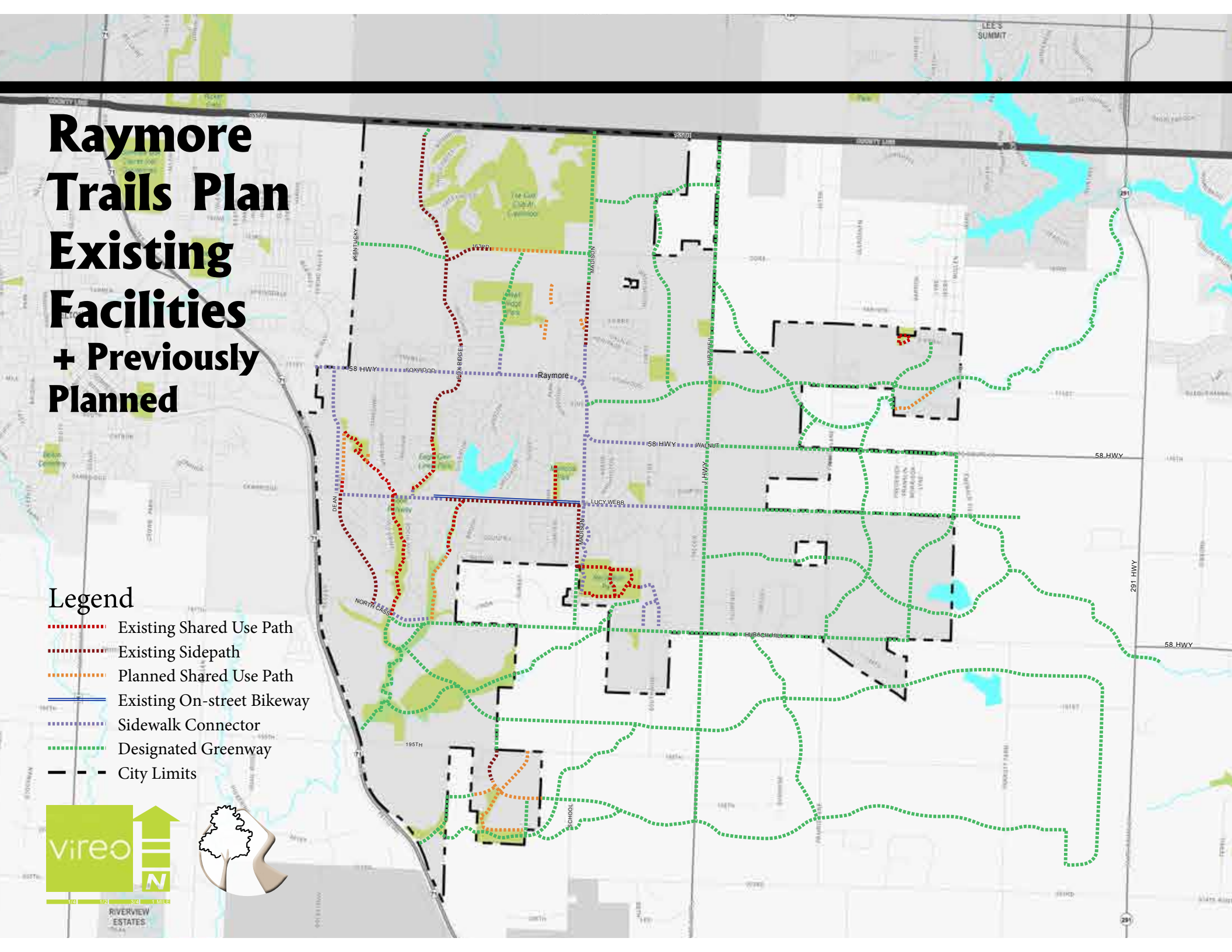
Legend

-  Existing Shared Use Path
-  Existing Sidewalk
-  Planned Shared Use Path
-  Existing On-street Bikeway
-  Sidewalk Connector
-  Designated Greenway
-  City Limits



0 0.2 0.4 0.6 0.8 1 MILE

RIVERVIEW
ESTATES





Trails Plan Update

The CWTP update (Figure 15) recommends the following changes to the current trail plan.

A – Extending Dean Avenue Trail north to the shopping districts on 58 Highway.

B – Increasing connectivity to and through Hawk Ridge Park by making more efficient connections to the neighborhoods with trail or sidewalks and any new street additions.

C – Converting existing sidewalk to side path along 58 Highway from Madison to Kurzweil (J Highway)

D – Reconfiguring the existing paths in Memorial Park as indicated on the plan in this report.

E – Adding to the trail map existing sidewalk connections from the neighborhoods to Recreation Park and improve connectivity to the neighborhoods to the south.

F – Providing a shared use path on the north side of Hubach Hill Road to connect existing and planned greenways, eliminating unnecessary mid-block crossings of Hubach Hill Road.

These changes reflect discussion with the City staff and also tie back to the Growth Management Plan in the following ways.

Economic Opportunity Goal #1 –

Retain existing businesses and encourage expansion of existing business.

- Creating better access throughout the community with alternative modes of transportation would only help citizens access local businesses.

Quality Neighborhoods Goal #5 –

Continue development of neighborhood parks.

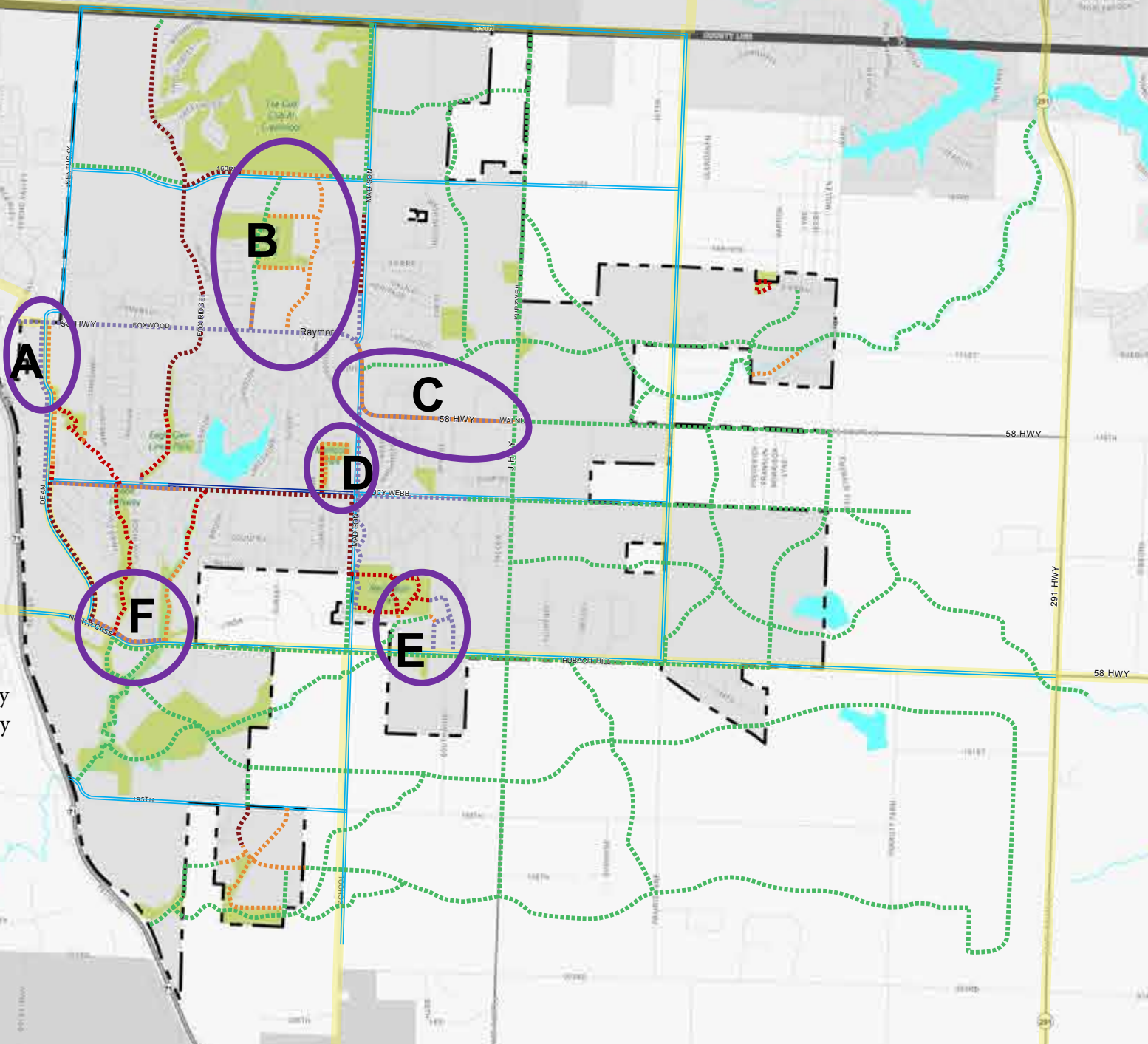
Neighborhood parks and recreational amenities, such as trails, are a strong component of a quality neighborhood. Efforts to establish neighborhood parks should continue.

Figure 15. Trail Plan update with the changed areas circled

Raymore Trails Plan Update

Legend

- Existing Shared Use Path
- Existing Sidepath
- Planned Shared Use Path
- Existing On-street Bikeway
- Planned On-street Bikeway
- Sidewalk Connector
- Designated Greenway
- MARC Regional Bikeway
- City Limits





Objective: To provide playgrounds, parks and/or open spaces at the neighborhood level.

1. Support continued development of neighborhoods parks where direct access to existing parks is not provided.
 2. Ensure the park land dedication and provision of park amenities is required for approval of any new residential development.
 3. Support funding of improvements in the existing and planned neighborhood parks.
 4. Ensuring parks are connected with each other and the neighborhoods their serve with sidewalks and/or trails.
- These important action steps will help assemble corridors for the CWTP that are key to the implementation of this plan

Community Connectivity Goal #2 –

Provide connections to existing transportation systems in the Kansas City metropolitan area.

Provide trail connection link between Raymore and the MetroGreen trails and the extension of the Katy Trail or Rock Island Trail State Park in Pleasant Hill.

- The CWTP identifies the connection to the Rock Island Trail State Park in Pleasant Hill as the greenway corridors extending toward 291 Highway and 58 Highway or via on-street connections along Huback Hill Road

Community Connectivity Goal #3 –

Continue expansion of the City's trail and sidewalk network.

Significant investment has been made recently in the construction of new sidewalks and trails. This investment should be continued to create interconnectivity between residential neighborhoods, recreational facilities and commercial areas.

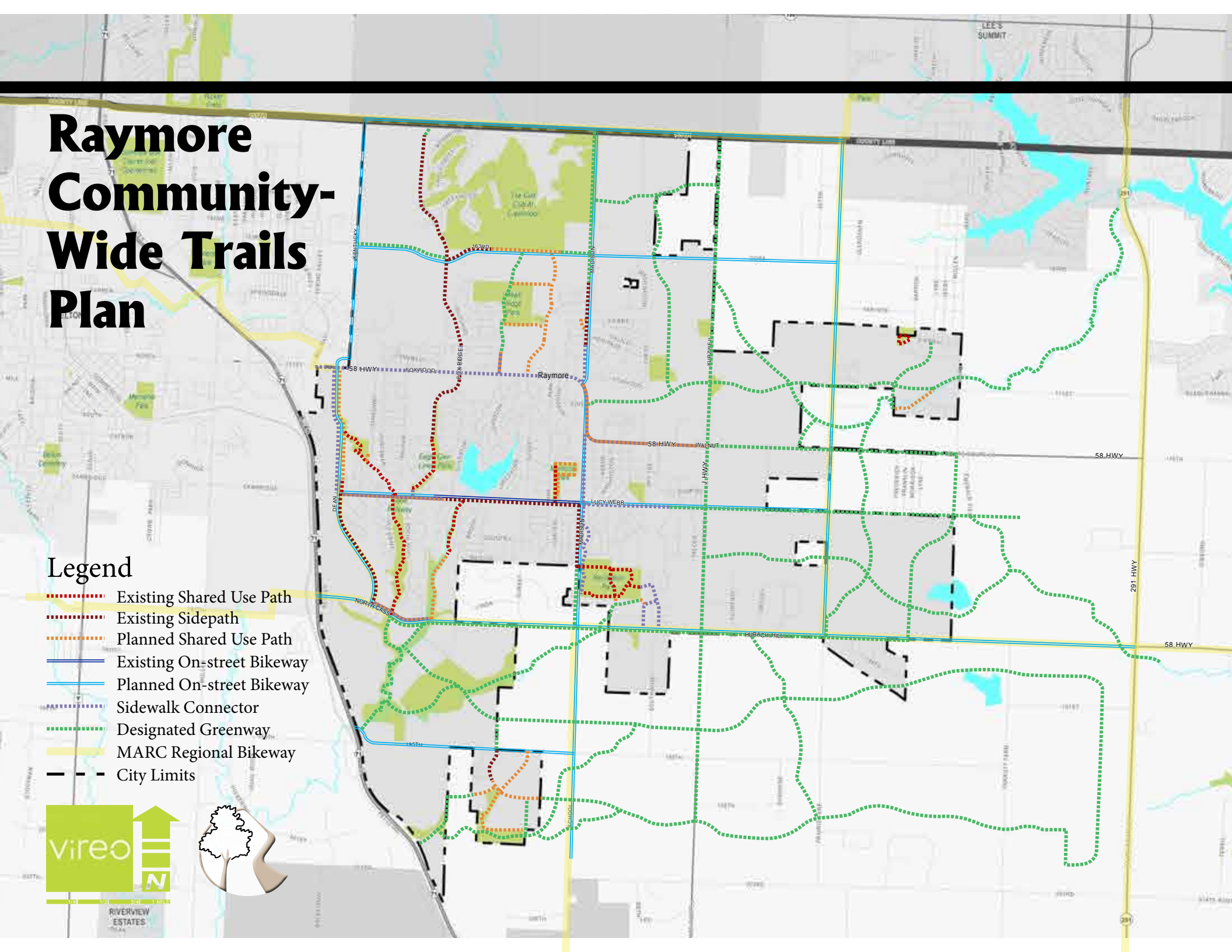
Objective: to ensure all residents have pedestrian connectivity with the entire City through use of a trail or sidewalk.

Figure 16. 2014 Community-Wide Trails Plan

Raymore Community- Wide Trails Plan

Legend

-  Existing Shared Use Path
-  Existing Sidewalk
-  Planned Shared Use Path
-  Existing On-street Bikeway
-  Planned On-street Bikeway
-  Sidewalk Connector
-  Designated Greenway
-  MARC Regional Bikeway
-  City Limits





Action steps include:

1. Support funding for continued expansion of the trail system and sidewalk network throughout the community.
2. Provide connectivity to the MetroGreen trail network and to the extension of the Katy Trail, known as Rock Island Trail State Park.
3. Publish trail maps and provide signage to identify trail locations
4. The CWTP identifies the expansion of the trail system and connectivity to other communities and regional destinations. Continue to implement the plan as growth occurs.

Community Connectivity Goal #4 –

Assist in creating social connectivity of residents.

Although this doesn't align completely with community-wide trails we believe that a more complete active transportation network would greatly enhance the opportunities for residents to access city facilities, schools, churches and commercial areas.

Memorial Park Trail Plan

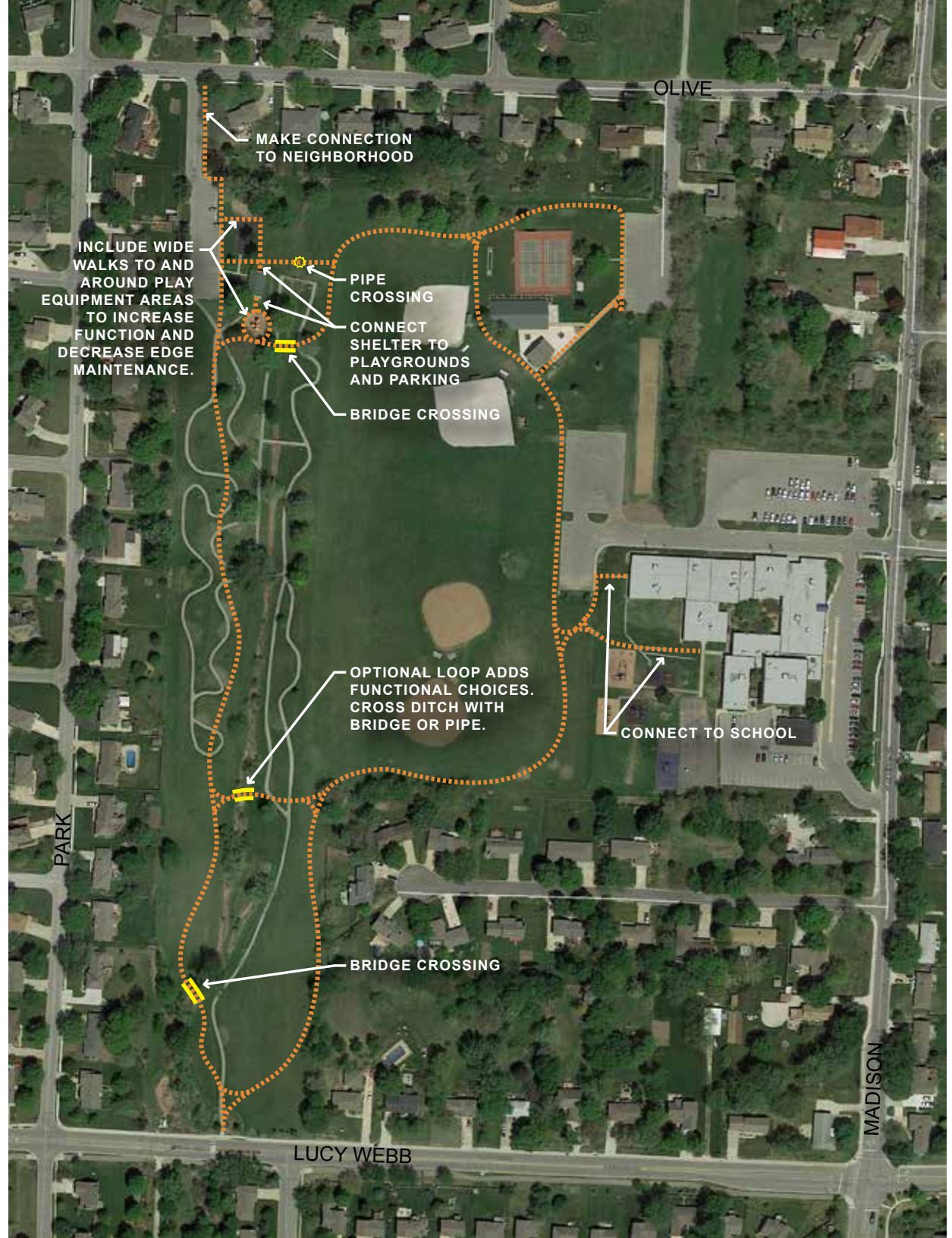
Consider realigning and widening the trails within Memorial Park to achieve better connectivity to the neighborhood, the school and recreation amenities within the park. As a part of the realignment plans, consider eliminating the three narrow bridge crossings of the drainage swale with two wider pre-engineered structures. The map (Figure 17) suggests an alignment option which would better connect the neighborhood to the west and south, as well as provide a loop around the perimeter of the park. This will make it easier to access the school and other recreational amenities.

Figure 17. Memorial Park Trail Plan

Memorial Park Trail Plan

Legend

----- Planned Shared Use Path





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